

Updated data,
Ex. T. Nam
5/29/06

UNITED STATES UTILITY PATENT APPLICATION

FOR

**ELECTRONIC BALLAST WITH
PROGRAMMABLE PROCESSOR**

EXPRESS MAIL Mailing Label No. ER 388893238 US

I hereby certify that this paper or fee is being deposited with the United States Postal Services "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated and is addressed to Mail Stop Patent Application, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on 11/14/03.

Michael E. Sellers
Typed Name

Michael E. Sellers
Signature

ELECTRONIC BALLAST WITH PROGRAMMABLE PROCESSOR

71. 5/29/06 This application is a continuation-in-part (CIP) of U.S. application no. 10/145,420, filed May 14, 2002 and entitled Electronic Ballast For Discharge Lamps, which is now U.S. Patent No. 6,650,067

1. FIELD OF THE INVENTION

The present invention relates generally to ballast circuits for operating gaseous discharge lamps. More particularly, the present invention relates to an electronic ballast with a programmable processor.

2. BACKGROUND OF THE INVENTION

Ballast circuits are generally used in gaseous discharge lighting systems to regulate the supply of electrical power to the lamp. The type and size of lamp to be operated are typically determinative of how the ballast circuit will be configured. For example, high intensity discharge (HID) lamps such as mercury, metal halide, and high pressure sodium lamps are usually operated at high wattage and require a different ballast circuit than lamps such as fluorescent lamps which operate at relatively low wattage. Even among lamps of the same type (i.e., mercury, metal halide, high pressure sodium, fluorescent, etc.) the specific lamp wattage can vary, which in turn requires a corresponding variance of elements within the ballast circuit in order to optimize operation of the lamps. As a result, conventional ballast circuits are unable to accommodate proper operation of different lamps types and/or lamps of the same type which operate at different wattages.

Typical ballast circuits include a starting circuit for igniting the lamp and an operating LCR (Inductor-Capacitor-Resistor) circuit for sustaining lamp ignition. In a typical ballast circuit, the same inductor is used to produce the electrical excitation necessary to ignite as well as to operate the lamp. In order to withstand large operating currents for prolonged periods of